Sheldrake, Sean

From: Sheldrake, Sean
Sent: Tuesday, July 22, 2014 10:18 AM
To: 'BAYUK Dana'
Cc: Muza, Richard; Lance Peterson (petersonle@cdmsmith.com); Scott Coffey <coffeyse@cdmsmith.com>; GAINER Tom; HAFLEY Dan; JOHNSON Keith; LARSEN Henning; LIVERMAN Alex; MCCLINCY Matt; schwarz.bob@deq.state.or.us
Subject: RE: Gasco Sediments Site Differential Temperature Sensing Work Plan

Thanks Dana, great comments; I had many of those concerns in my initial read. We'll get them incorporated.

Lance, related note, could you check the manner of cable deployment? If it's going to be thru the use of divers, we'll need to dust off the HASP, remind Ryan that we'll need additional review time on the dive plan, etc.

S

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-----Original Message-----
From: BAYUK Dana [mailto:BAYUK.Dana@deq.state.or.us]
Sent: Monday, July 21, 2014 6:45 PM
To: Sheldrake, Sean
Cc: Muza, Richard; Lance Peterson (petersonle@cdmsmith.com); Scott Coffey <coffeyse@cdmsmith.com>; GAINER Tom; HAFLEY Dan; JOHNSON Keith; LARSEN Henning; LIVERMAN Alex; MCCLINCY Matt; schwarz.bob@deq.state.or.us
Subject: RE: Gasco Sediments Site Differential Temperature Sensing Work Plan

Hello Sean.

DEQ reviewed the "Gasco Sediments Site – Distributed Temperature Sensing Work Plan," dated June 20, 2014 (Work Plan). The Work Plan presents NW Natural's proposal to assess groundwater discharge from the GascoSite to the Willamette River using a temperature sensing approach. DEQ's comments are provided below.

Comment #1, Introduction and Objective, Page 1. The Work Plan provides confusing information regarding the objective of the proposed investigation. The last sentence in the 1st paragraph indicates that, "The purpose of this Work Plan is to describe a proposed field investigation for identifying areas of groundwater discharge and recharge in the Willamette River adjacent to the Gasco Sediment Site to support the evaluation of remedial technologies required by the AOC." The last sentence in the "Objectives" section indicates that, "If the collected data is helpful in evaluating remedial effectiveness of different design scenarios in the target area, NW Natural may decide to propose implementation of this technology in other portions of the Project Area."

Given the limited size of and location of the survey area proposed in the Work Plan, DEQ believes the proposed temperature survey represents an initial assessment of the distributed temperature sensing (DTS) technology and its potential use in the Gasco Sediments Site. Consistent with information in the Work Plan (see "Distributed Temperature Sensing at Contaminated Sediment Sites"), we further understand use of the DTS technology will support selection of

seepage meter locations to further quantify groundwater flux to/from the river and for collection of transition-zone water samples for analysis. The Work Plan should confirm, clarify, or correct these understandings.

Comment #2, Objective, Page 1. The Work Plan mentions the groundwater model referenced in the Draft EECA Report and EPA's request for the predictions of flow reversal to be further evaluated. This appears to be the basis for NW Natural's preparation of the Work Plan. However, background and supporting information regarding the model were not provided in the Draft EECA Report. Comments on the Draft EECA Report requested information regarding the model, including but not limited to model documentation to support the gradient reversal figure included in the report. To date this information has not been provided. Without information being provided about the model, it is unclear what specific data needs NW Natural intends the Work Plan to address.

Comment #3, Previous Offshore Groundwater Investigations, Page 3. Based on information provided in previous submittals, DEQ understands that besides GCSEEP 7F seepage meter data were collected at other seepage meter locations in the vicinity of GS-B7SM, including GCSEEP 7B, GS-C7SM, SLSEEP 2E, and SLSEEP 2A. The Work Plan should discuss these seepage meters in the context of the proposed survey area.

Comment #4, Previous Offshore Groundwater Investigations, Page 3. Available data for Seepage Meter GS-B7SM suggests that overall the river recharges groundwater at this location. Consequently, the survey appears to focus on an area where existing conditions support “gradient reversal” from the river to groundwater. The Work Plan should provide the basis for proposing the survey area shown in Figure 3, and discuss the potential limitations of the survey area location on DTS data collection, use, and interpretation.

Comment #5, Previous Offshore Groundwater Investigations, Page 3. The Work Plan indicates that the historic seepage meter data summarized for GS-B7SM and GCSEEP 7F do not consider operation of the Alluvium WBZ HC&C system. DEQ currently understands that operation of the HC&C system is ongoing at low discharge rates to maintain water flow through water treatment system piping and equipment. Based on the location of the proposed survey area, operation of the HC&C system could result in unreasonable overestimates of recharge rates from the river to groundwater. The Work Plan should discuss the status of theHC&C system, including the current operational schedule and flow rates; and how this information will be incorporated into analysis of the DTS data.

Comment #6, Proposed DTS Test Investigation, Page 3. Figure 3 indicates the DTS technology will be used to assess groundwater discharge/recharge in an area approximately 300-feet long by 150-feet wide along the southern shoreline of the Gaco Site. The Work Plan indicates that the survey area includes the locations of two seepage meters (i.e., GS-B7SM and GCSEEP 7F). However, Figure 3 of the Work Plan shows that only GS-B7SM is within the actual survey area. This observation should be included in the Work Plan.

Comment #7, Proposed DTS Test Investigation, Page 4. The Work Plan indicates the DTS cable will be buried in the upper 2-inches of sediment. The depth of the cable appears to be an especially important factor in collecting representative and usable data regarding the interaction(s) between groundwater and the river. Consequently, the Work Plan should fully explain the technical basis for this approach.

Note that if needed additional information regarding comments #3 through 5, including information regarding the numbers, locations, and data collected from seepage meters in the Gasco Sediment Project area; are shown in figures 4-1 through 4-16 of the February 2008 Offshore Investigation Report (go tohttp://yosemite.epa.gov/R10/CLEANUP.NSF/PH/Gasco-Siltronic+Technical+Documents then search for “offshore”)

Thanks for the opportunity to provide comments on the Work Plan. Please don’t hesitate to contact me with questions regarding this e-mail.

Hope your evening goes well.

Dana

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Please visit our website at http://www.oregon.gov/DEQ/

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From: Sheldrake, Sean [sheldrake.sean@epa.gov]
Sent: Friday, June 20, 2014 4:14 PM
To: LIVERMAN Alex; Allen, Elizabeth; audiehuber@ctuir.com; BAYUK Dana; SCHWARZ Bob; bob@ridolfi.com; callie@ridolfi.com; coffeyse@cdm.com; Conley, Alanna; Cora, Lori; cunninghame@gorge.net; HAFLEY Dan; erin.madden@gmail.com; Fuentes, Rene; Gail Fricano (gfricano@indecon.com); Genevieve Angle - NOAA-NMFS (Genevieve.Angle@noaa.gov); Gustavson, Karl; Holly Partridge (Holly.Partridge@grandronde.org); jd@williamsjohnsonlaw.com; Jen Kassakian (jkassakian@indecon.com); Jeremy_Buck@fws.gov; JOHNSON Keith; jweis@hk-law.com; KingTW@cdmsmith.com; Kristin Callahan; Koch, Kristine; Lance Peterson (PetersonLE@cdmsmith.com); matt@williamsjohnsonlaw.com; MCCLINCY Matt; tosm@yakamafish-nsn.gov; Michael.karnosh@grandronde.org; Muza, Richard; nancy.munn@noaa.gov; PETERSON Jenn L; POULSEN Mike; Rachel DelVecchio (rdelvecchio@indecon.com); Robert.Neely@noaa.gov; rose@yakamafish-nsn.gov; Susan Penoyar (PenoyarSJ@cdmsmith.com); ted_buerger@fws.gov; tomd@ctsi.nsn.us; GAINER Tom
Subject: Gasco Sediments Site Differential Temperature Sensing Work Plan

Hello everyone, Please see the attached, fyi. One of my primary comments on this approach is that we will need to bookend a high head differential datapoint with one where it is lower but precipitation is greater—in order to try to use this for cap design purposes potentially.

S

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From: Ryan Barth [mailto:rbarth@anchorqea.com]
Sent: Friday, June 20, 2014 3:21 PM
To: Sheldrake, Sean
Subject: RE: Gasco Sediments Site Differential Temperature Sensing Work Plan - Download Instructions

Attached please find the Work Plan referenced below. Thanks.

Ryan Barth, P.E.
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From: Sheldrake, Sean [mailto:sheldrake.sean@epa.gov]
Sent: Friday, June 20, 2014 1:06 PM
To: Ryan Barth
Subject: RE: Gasco Sediments Site Differential Temperature Sensing Work Plan - Download Instructions

Hi Ryan, I'm on the ftp, but I'm not seeing this workplan—just 3 others. S

Name

Size

Date Modified

Fill WBZ Work Plan/<ftp://ftp.anchorqea.com/Fill%20WBZ%20Work%20Plan/>

11/18/13 12:00:00 AM

Gasco Source Control Test Report/<ftp://ftp.anchorqea.com/Gasco%20Source%20Control%20Test%20Report/>

4/14/14 12:00:00 AM

Hydraulic SC & Containment System GW Model
Update/<ftp://ftp.anchorqea.com/Hydraulic%20SC%20&%20Containment%20System%20GW%20Model%20Update/>

6/13/14 5:26:00 PM

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From: Ryan Barth [mailto:rbarth@anchorqea.com]
Sent: Friday, June 20, 2014 12:38 PM
To: Sheldrake, Sean
Cc: Bob Wyatt; Patty Dost; Carl Stivers; Ben Hung; Burr, Myron; Gladstone, Alan; Earle, William G. (WEARLE@davisrothwell.com<mailto:WEARLE@davisrothwell.com>); James Peale; Peterson, Lance; Mullin, Jeanette
Subject: Gasco Sediments Site Differential Temperature Sensing Work Plan - Download Instructions

Sean -

Below please provide the download instructions for the Differential Temperature Sensing Work Plan prepared for the Gasco Sediments Site. NW Natural prepared the Work Plan to further support development and evaluation of remedial alternatives for the Gasco Sediments Site pursuant to the Administrative Settlement Agreement and Order on Consent (AOC; Docket No. CERCLA 10-2009-0255). The Work Plan describes a proposed field investigation for identifying areas of groundwater discharge and recharge in the Willamette River adjacent to the Gasco Sediment Site to support the evaluation of remedial technologies required by the AOC. Please let me know if you have any issues accessing the document and if you have any questions during your review. Thanks.

To access the FTP site automatically using Windows Explorer please follow the steps below.

- From Windows XP desktop select Start -> Run or for Windows 7 select Start -> and click in the search box
- Copy/Paste the following line into the "Open" box for XP or the "Search" box for Windows 7 and hit "enter" %systemroot%/explorer ftp://epa%40000029-02.32:transf3r-3@ftp.anchorqea.com/
- You should now be logged into the site using Windows Explorer. You can use copy/paste to move files to or from the site

To access the FTP site manually using a FTP browser like CoreFTP<http://www.coreftp.com/> or Windows Explorer please use the info below.

- Site URL: ftp://ftp.anchorqea.com<ftp://ftp.anchorqea.com/>
- Username: (b) (6)
- Password: (b) (6)

To access the FTP site via web browser please follow the steps below.

- Click on the following link: https://ftp.anchorqea.com/aq
- Input the username and password that are listed in the above section
- Use the tools available directly to the site to download or upload

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